

RESEARCH DEPARTMENT

SALISBURY U.H.F. RELAY STATION: SUMMARY OF INSTALLATION

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for Head of Research and Development

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U.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION

NAME: 108.01 SALISBURY

TYPE: 1

TRANSMISSIONS COMMENCED:

(TRADE) 22.4.68

(SERVICE) 6.5.68

SITE DATA

LOCATION: HARNWOOD HOSPITAL

SUPPORT MAST

GRID REFERENCE: SU 136285

TYPE: 46 m (150 ft) TOWER

HEIGHT, a.o.d. : 106.7 m (350 ft)

OVERALL HEIGHT: 56 m (185 ft) a.g.l.

FREQUENCIES

BAND: V

CHANNELS: 53, 57 (BBC 1)
60, 63 (BBC 2)

RECEPTION

PARENT: ROWRIDGE

CHANNELS: 21, 24 (BBC 2)
27, 31 (BBC 1)

TRANSMITTERS

TYPE: Klystron 1 kW

POLARIZATION: HORIZONTAL
AERIAL HEIGHTS: 29.3 m (96 ft) a.g.l.
32.0 m (105 ft) a.g.l.

OPERATING POWER: (1) 0.18 kW
(2) 0.72 kW

AERIALS: 2 x 4 λ TROUGHS
TRANSMITTING: F and G 1.5/8 SW

TRANSMITTING AERIAL

TYPE: BBC STANDARD CARDIOID

FEEDERS
RECEIVING: BICC T3319

RADIATING LENGTH: 16 λ

RADIATION CHARACTERISTICS

H.R.P. : Fig. 1

POLARIZATION: VERTICAL

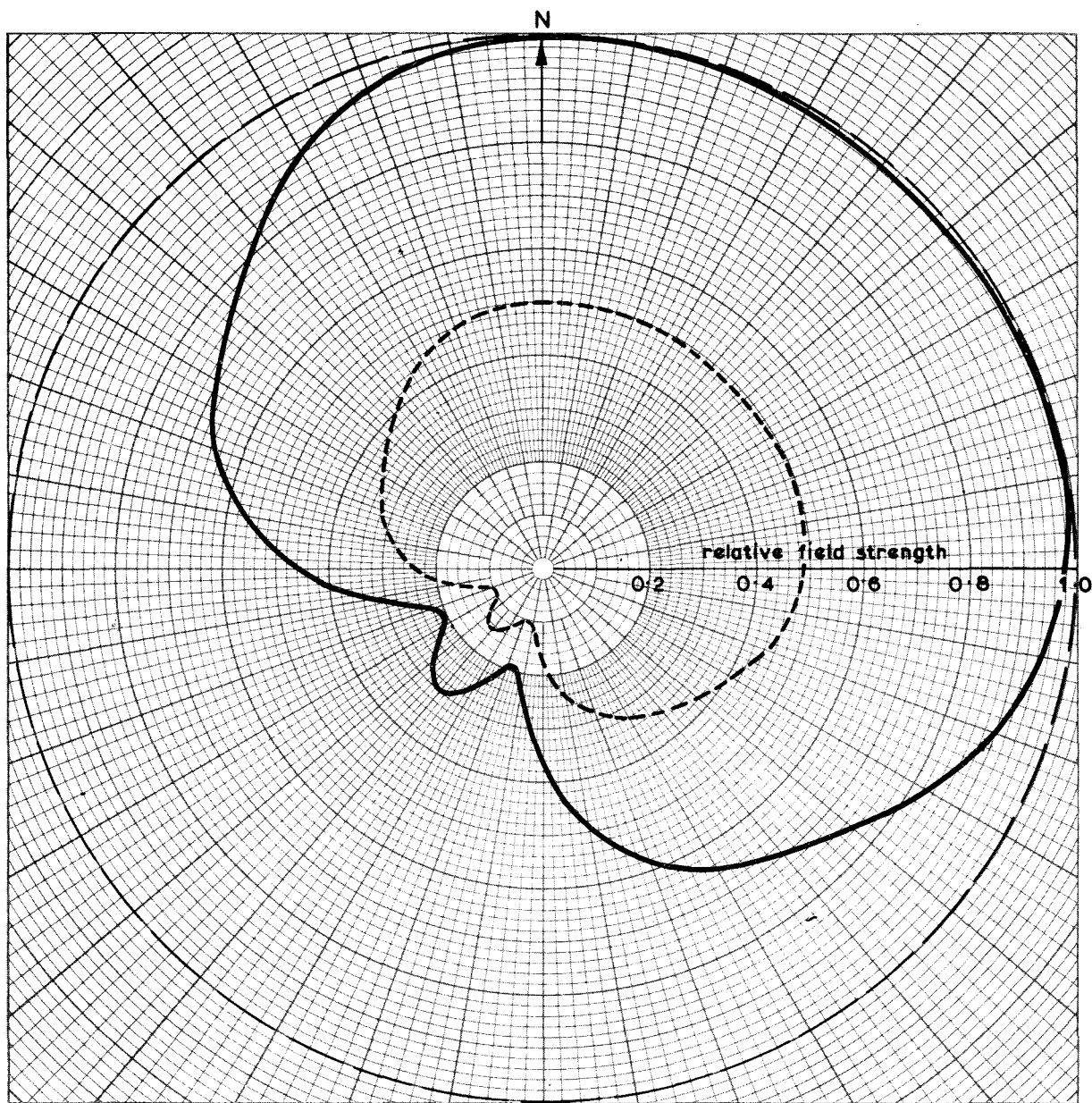
V.R.P. : Fig. 2

MEAN E.R.P. : (1) 1.4 kW
(2) 5.6 kW
MAXIMUM E.R.P. : (1) 2.5 kW
(2) 10 kW

MEAN HEIGHT: 49.2 m (161 ft 6 in) a.g.l.

NOTES:

(1) Initial power
(2) Power increase when Station 136.00, South Devon, comes into operation.



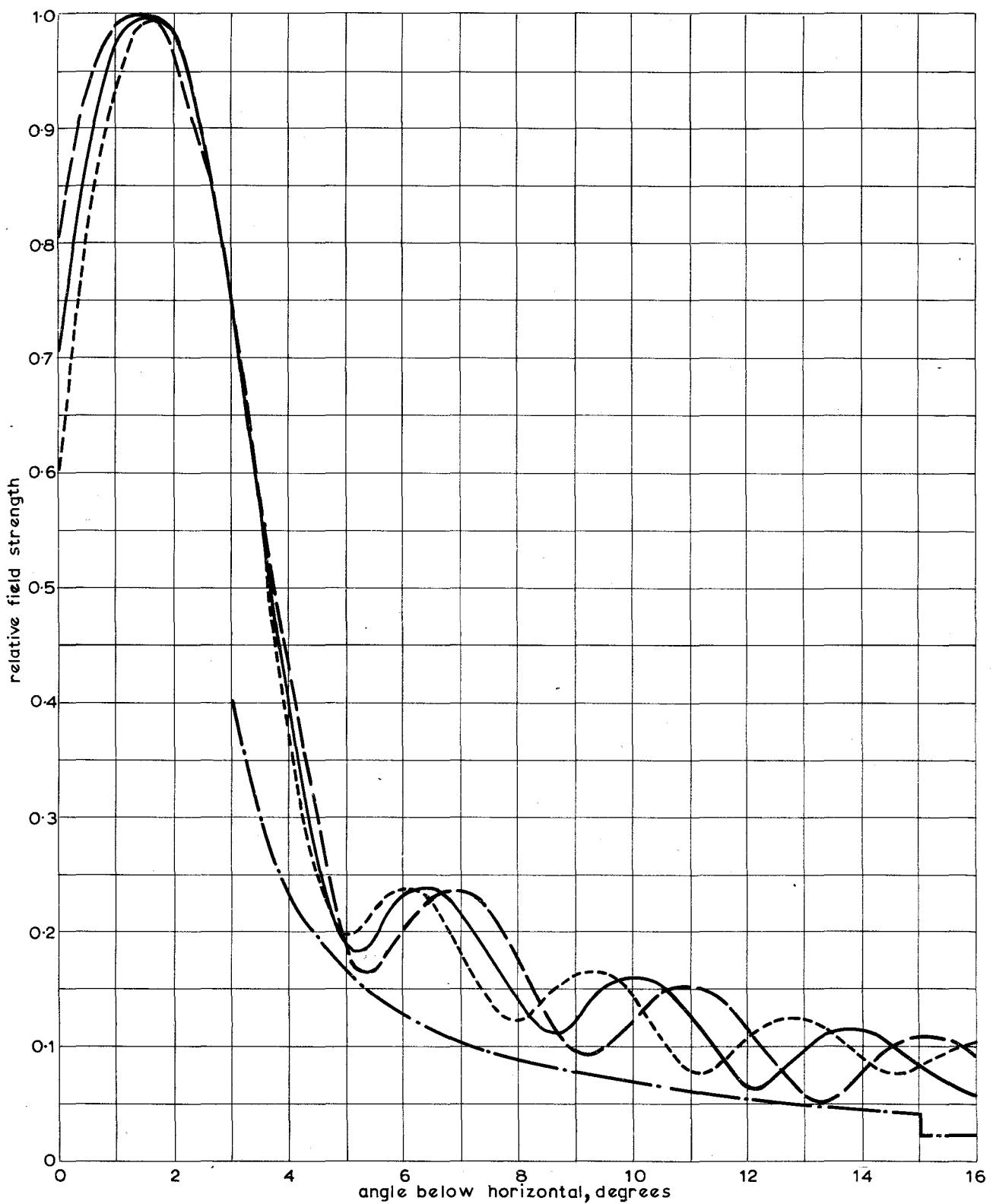
SALISBURY

Fig. 1. Horizontal radiation pattern

VERTICAL POLARIZATION

- Transmitter power: 0.18 kW
Mean E.R.P.: 1.4 kW
- Transmitter power: 0.72 kW
Mean E.R.P.: 5.6 kW
- Stockholm E.R.P. limit

Unit field corresponds to an E.R.P. of 10 kW



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Fig. 2. Vertical radiation pattern

— 710 MHz
— 790 MHz
- - - 870 MHz
— Specified minimum field